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SHIRAI TOSHIKI****(54) STRIP LINE TYPE DIRECTIONAL COUPLER****(57) Abstract:**

PURPOSE: To make the titled directional coupler serve for a necessary measurement with a degree of coupling and a directivity of a high accuracy, extending over a wide frequency band; by varying almost linearly a mutual interval of two pieces of strip lines and the respective line widths, and making a ratio of the mutual interval and the line width roughly constant along the longitudinal direction of the strip line.

CONSTITUTION: The titled directional coupler is constituted so that a conductor width of a strip line for forming a main line P and a coupling line S, and a mutual interval are varied linearly extending from d_1 to d_2 , and from D_1 to D_2 , respectively, and also a ratio of the mutual interval and the line width, D_1/d_1 or D_2/d_2 becomes the almost same prescribed value. Also, it is desirable to correct a variation of a characteristic impedance which is generated along the longitudinal direction of the line, by curving to some extent a tapered line conductor running along the longitudinal direction of the line. In this regard, an absolute value of the line length is set in advance so as to become equal substantially to $1/4$ of a

wavelength $\lambda_0 L$ of the lowest frequency in a use frequency range.

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